



MAHENDRA ARTS & SCIENCE COLLEGE (Autonomous)

Affiliated to Periyar University, Salem.

Accredited by NAAC with 'A' Grade & Recognized u/s 2(f) and 12(B) of the UGC Act 1956
Kalippatti - 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY

Students Undertaking Field Projects / Internships / In-plant Training / Student Projects

Programme : M.Sc. Biotechnology

| S.No. | Reg. No. | Name | Field Projects | Internships | In-plant Training | Student Projects |
|-------|-----------|------------------|----------------|-------------|-------------------|------------------|
| 1. | 19MBT1001 | KARTHIKEYAN. J | - | ✓ | - | ✓ |
| 2. | 19MBT1002 | KARTHIKEYAN. R. | - | ✓ | - | ✓ |
| 3. | 19MBT1003 | PARISAN K.P. | - | ✓ | - | ✓ |
| 4. | 19MBT1004 | RAJAKANNAN.S | - | ✓ | - | ✓ |
| 5. | 19MBT1006 | SATHISH KUMAR G. | - | ✓ | - | ✓ |
| 6. | 19MBT100 | SOUNDARARAJAN S. | - | ✓ | - | ✓ |
| 7. | 19MBT1007 | ABIRAMI T. | - | ✓ | - | ✓ |
| 8. | 19MBT1008 | ISWARYA S | - | ✓ | - | ✓ |
| 9. | 19MBT1009 | JOTHIGA.M | - | ✓ | - | ✓ |
| 10. | 19MBT1010 | KAVITHA P | - | ✓ | - | ✓ |
| 11. | 19MBT1011 | MADHU MITHA V | - | ✓ | - | ✓ |
| 12. | 19MBT1012 | SHALINI V | - | ✓ | - | ✓ |
| 13. | 19MBT1013 | THILAGAVATHI J | - | ✓ | - | ✓ |


Head of the Department
HEAD OF THE DEPARTMENT

Department of Biotechnology,
Mahendra Arts & Science College (Autonomous),
Kalippatti (Po) - 637 501. Tiruchengode (Tk),
Namakkal (Dt). Tamil Nadu. India.


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MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)
Kalippatti (PO) - 637 501, Namakkal (DT)


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Kalippatti - 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY


List of students completed Internship Training - 2020 - 2021

Programme : M.Sc. Biotechnology

| S.No | Reg.No | Name of the Candidate | Title of the Internship |
|------|-----------|-----------------------|---|
| 1. | 19MBT1001 | KARTHIKEYAN. J | Internship Program report DEEPAA Microlab |
| 2. | 19MBT1002 | KARTHIKEYAN. R. | Training on Detailed study on Salem dairy Processing Unit |
| 3. | 19MBT1003 | PARISAN K.P. | Training on Detailed study on Hubert Enviro care system |
| 4. | 19MBT1004 | RAJAKANNAN.S | Training on Detailed study on Hubert Enviro care system private |
| 5. | 19MBT1006 | SATHISH KUMAR G. | Training on Detailed study on Hubert Enviro care system private limited |
| 6. | 19MBT100 | SOUNDARARAJAN S. | Training on Detailed study on Salem dairy Processing Unit |
| 7. | 19MBT1007 | ABIRAMI T. | Training on Detailed study on Salem dairy Processing Unit |
| 8. | 19MBT1008 | ISWARYA S | Training on Detailed study on Salem dairy Processing Unit |
| 9. | 19MBT1009 | JOTHIGA.M | Training on Detailed study on Salem dairy Processing Unit |
| 10. | 19MBT1010 | KAVITHA P | Training on Detailed study on Salem dairy Processing Unit |
| 11. | 19MBT1011 | MADHU MITHA V | Internship Programme report in Sri Gokul X-ray's Clinical Laboratory & E.C.G center |
| 12. | 19MBT1012 | SHALINI V | Internship Programme report in Sri Gokul X-ray's Clinical Laboratory & E.C.G center |
| 13. | 19MBT1013 | THILAGAVATHI J | Training on Detailed study on Salem dairy Processing Unit |


Head of the Department
HEAD OF THE DEPARTMENT
Department of Biotechnology,
Mahendra Arts & Science College (Autonomous),
Kalippatti (Po) - 637 501, Tiruchengode (Tk),
Namakkal (Dt), Tamil Nadu, India.


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DEEPAA MICRO LAB

DEEPAA MICRO LAB



GOVERNMENT
TAMIL NADU



CERTIFICATE

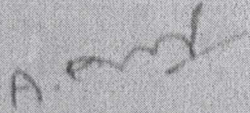
DATE: 06.03.2021

NAME : Mr.KARTHIKEYAN.J
DEPARTMENT : BIOTECHNOLOGY
YEAR : M.SC., II-YEAR
COLLEGE : MAHENDRA ARTS & SCIENCE COLLEGE
KALIPATTI.
PERIOD : 15 days (11/02/2021 to 25/02/2021)

This is certify that **Mr.KARTHIKEYAN.J** has undergone training in Deepaa Micro Lab, Erode date from (11/02/2021 to 25/02/2021).

He is trained in Bio-chemistry, Immunology, Microbiology, Serology and Clinical Pathology in our laboratory.

We wish his all the best in his future carrier.


Mr. A. KRISHNAMOORTHY., M.S.
Chief Of Laboratory Service
DEEPAA MICRO LAB
20 Pavada Street, Opp. Kalamejai Kalivarayan,
ERODE - 638 001


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MAHENDRA ARTS & SCIENCE COLLEG:
(Autonomous)

Kalippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd. No. ED. 912)

Satham, Thalavampatti P.O., Salem 636 302, Tamil Nadu

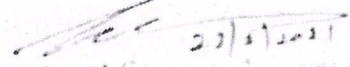
Mobile No: 042 23865 01800 / 042 23865 01802

Fax: 042 23865 01803 E-Mail: aavin@vsnl.com

Ref. No. 3719/Fst/TC/2021 GST: 0411113116P/White: 23.02.2021

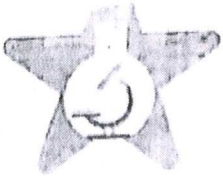
CERTIFICATE

This is to certify that **R. KARTHIKEYAN**, IInd year
M.Sc. Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.


22/2/2021
Assistant General Manager (P &
Training Co-ordinator)
Salem Dist. Co-op. Milk Producers'
Union Ltd., Salem



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Kalippatti (PO) - 637 501, Namakkal (DT)



STAR MICRO LAB

Salem, Tamil Nadu, India.

Contact number: 9932521613

Certificate of participation

This is to certify that **Mr. K.P. PARISAN** (Reg. No. 19MBT1003) pursuing M.Sc Biotechnology at Mahendra Arts and Science College, Kallipatti has successfully completed three days training programme on “**Microbiological techniques involved in food and water sample analysis**” at our lab on 08.02.2021 to 22.02.2021. During his tenure, we found him sincere, hardworking, technically sound and result oriented and worked well as part of a team. We take this opportunity to thank and wish him all the best for his future endeavors.

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Kalippatti (PO) - 637 501, Namakkal (DT)

Authorized signature

STAR MICRO LABS

5 Roads, Salem
Tamilnadu, India.

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CERTIFICATE

This is to certify that Mr. S. Rajakannan (Reg. No. 19MBT1004), M.Sc. Biotechnology, Mahendra Arts and Science College, Kalipatti Affiliated to Periyar University, Salem, has participated in Internship Training Program on "Microbiological Techniques involved in Food and Water Sample Analysis" at Hubert Enviro Care Systems Private Limited, Guindy, Chennai - 32 under my supervision from 08.02.2021 to 22.02.2021.



Elaiyaruju
Authorized Signatory
Dr. P. ELAIYARAJU
Assistant Manager

[Signature]
PRINCIPAL

MAHENDRA ARTS & SCIENCE COLLEGE
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Kalippatti (PO) - 637 501, Namakkal (DT)

HUBERT ENVIRO CARE SYSTEMS (P) LTD

A-21, (Behind Lions Club School) III Phase, Thiru Vi Ka Industrial Estate, Guindy, Chennai - 600 032.

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India | United Kingdom | Netherlands



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This is to certify that Mr. G. Sathish Kumar (Reg. No. 19MBT1005) M.Sc. Biotechnology, Mahendra Arts and Science College, Kalipatti Affiliated to Periyar University, Salem, has participated in Internship Training Program on "Microbiological Techniques involved in Food and Water Sample Analysis" at Hubert Enviro Care Systems Private Limited, Guindy, Chennai - 600 032 under my supervision from 08.02.2021 to 22.02.2021.



Authorized Signatory
Dr. P. ELAIYARAJU
Assistant Manager

HUBERT ENVIRO CARE SYSTEMS (P) LTD

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Kalippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd. No. PD. 912)

Subram, Tholavaipatti PO, Salem-636 302, Tamilnadu

Mobile No. 73737 04800, 73737 04802

Fax 0427-2386871 Email aavin@smi@gmail.com

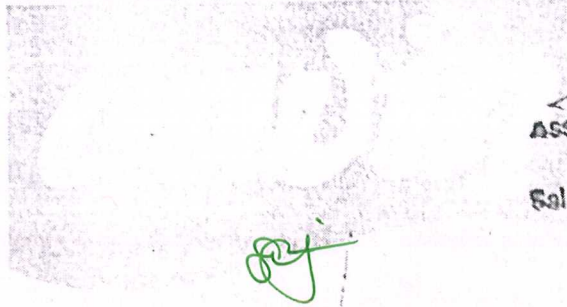
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Ref. No. 3719/Estt/TC/2021

Date: 23.02.2021

CERTIFICATE

This is to certify that **S. SOUNDARARAJAN**, IInd year M.Sc., Bio Technology student of Mahendra College of Arts & Science, Namakkal District has undergone Inplant Training at Salem Dairy from 05.02.2021 to 18.02.2021.



23/02/2021
Assistant General Manager (P & T)
Training Centre,
Salem Dist. Co. op. Milk Producers
Union Ltd., Salem

PRINCIPAL

MAHENDRA ARTS & SCIENCE COLLEGE
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Kalippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd. No. ED. 912)

Sithamar, Thalavaiyatti P.O., Salem-636 302 Tamilnadu

Mobile No : 73737 04800, 73737 04802

Fax : 0427-2386871 Email : aavinmslm@gmail.com


GST : 33AAAAT3146P1ZA

Ref. No. 3719/Estt/TC/2021

Date: 23.02.2021

CERTIFICATE

*This is to certify that T.ABIRAMI, IINd year M.SC.,
Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.*


23/2/2021
Assistant General Manager (P & I),
Training Centre,
Salem Dist. Co. op. Milk Producer
Union Ltd., Salem.



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MAHENDRA ARTS & SCIENCE COLLEGE
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Kalippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd No TD 512)

Sukanya, Thilavampatti P.O., Salem 646 002, Tamilnadu

Mobile No. 042 04800 042 04802

Fax 042 2480511 Email aavinmld@gmail.com


GST UUUU13146P1ZA

Ref. No. 3719/Estt/TC/2021

Date: 23.02.2021

CERTIFICATE

This is to certify that **M.JOTHIGA**, IINd year M.Sc.,
Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.


23/2/2021
Assistant General Manager (P & D)
Training Centre,
Salem Dist. Co. op. Milk Producer
Union Ltd., Salem


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Kallippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd. No. ED. 912)

Sihampur, Thalavaipatti P.O., Salem-636 302, Tamilnadu

Mobile No. : 73737 04800, 73737 04802

Fax : 0427-2386871 Email : aavin@sm@gmail.com

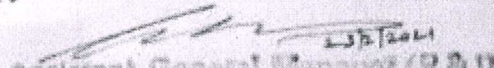
GST : 33AAAAAT3146P1ZA

Ref. No. 3719/Estt/TC/2021

Date: 23.02.2021

CERTIFICATE

*This is to certify that S. ISWARYA, IINd year M.Sc.,
Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.*


Assistant General Manager (P & T)
Training Centre,
Salem Dist. Co. op. Milk Produce
Union Ltd., Salem


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(Autonomous)
Kallippatti (PO) - 637 501, Namakkal (DT)



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd) No. EC 1121

Athaniat, Thuduvampatti P.O., Salem-636 302, Tamilnadu

Mobile No. 9447114697 / 9447114698

Fax: 0427 2186971 Email: savinim@gmail.com

GST: 33AAAA1916P1Z1

Ref. No. 3719/Estt/TC/2021

Date: 23.02.2021

CERTIFICATE

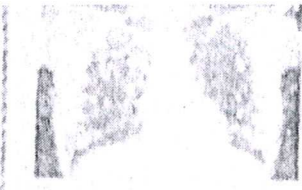
This is to certify that **P. KAVITHA**, IInd year M.Sc.
Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.

Assistant General Manager (P & T)
Training Cell
Salem Dist. Co. op. Milk Producers'
Union Ltd., Salem

PRINCIPAL

MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)

Kallipatti (PO) - 637 501, Namakkal (DT)



SRI GOKUL X-RAYS
CLINICAL LABORATORY & ECG CENTRE
 RAMALINGA COMPLEX, KADAYAMPATHI MAIN ROAD
 ELAMPILLAI, SALEM - 637 502
 PH : 0427 - 2493603, CELL : 94434 69543



TO :

THE PRINCIPAL
 MAHENDRA ARTS & SCIENCE COLLEGE
 KALIPPATTI

SUB : Internship programme – request

Dear Concerned,

I hereby certify that Miss.Madhumitha.V was got training as LAB
 TECHNICIAN with our Lab, during the period starting from 19-01-2021 to
 04-02-2021

During her working, we found Miss.Madhumitha.V to be a professional,
 knowledgeable and result oriented with theoretical and practical
 understanding of work requirements. She has successfully completed
 job related training programmes.She has a friendly, outgoing personality,
 very good sense of humour and works well as an individual or member of a
 team as required by the management.Overall, Miss.Madhumitha.V
 performed her duties and responsibilities cheerfully with attention to detail
 at all times. With her enthusiasm to work, learn and progress, I am
 certain that she would make a great employee to any enterprise.Please feel
 free to contact us if you have specific questions regarding her
 employment.On behalf of the laboratory, I take this opportunity to wish
 Miss.Madhumitha.V all the very best in her future career endeavours.

With warm regards

Mr. K. Viswanathan.

Prop. Sri Gokul X-Rays.Lab & ECG Centre
 Elampillai, Salem

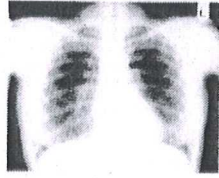
GSTIN : 33ACHPV6737A1AM

SRI GOKUL X-RAYS CLINICAL LABORATORY & ECG CENTRE
 639/3 A, Ramalinga Complex, Kadayampathi Main Road,
 Elampillai, Salem, Tamilnadu - 637 502

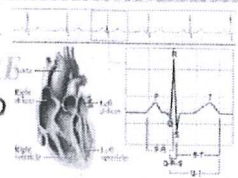
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MAHENDRA ARTS & SCIENCE COLLEGE
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Kalippatti (PO) - 637 501, Namakkal (DT)

Verified by



SRI GOKUL X-RAY'S
CLINICAL LABORATORY & E.C.G CENTRE
RAMALINGA COMPLEX, KADAYAMPATTI MAIN ROAD
ELAMPILLAI, SALEM – 637 502
PH : 0427 - 2493603, CELL : 94434 69543



TO :

THE PRINCIPAL
MAHENDRA ARTS & SCIENCE COLLEGE
KALIPPATTI

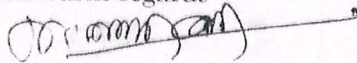
SUB : Internship programme – request

Dear Concerned,

I hereby certify that Miss.Shalini.V was got training as LAB TECHNICIAN with our Lab, during the period starting from 18-01-2021 to 04-02-2021

During her working, we found Miss.Shalini.V to be a professional, knowledgeable and result oriented with theoretical and practical understanding of work requirements. She has successfully completed job related training programmes. She has a friendly, outgoing personality, very good sense of humour and works well as an individual or member of a team as required by the management. Overall, Miss.Shalini.V performed her duties and responsibilities cheerfully with attention to detail at all times. With her enthusiasm to work, learn and progress, I am certain that she would make a great employee to any enterprise. Please feel free to contact us if you have specific questions regarding her employment. On behalf of the laboratory, I take this opportunity to wish Miss.Shalini.V all the very best in her future career endeavours.

With warm regards


Mr. K. Viswanathan.

Prop . Sri Gokul X-Rays, Lab & ECG Centre
Elampillai, Salem

GSTIN : 33ACHPV6737A1ZM
SRI GOKUL X-RAY'S CLINICAL LABORATORY & E.C.G CENTRE
639/3-A, Ramalinga Complex, Kadayampatti Main Road,
Elampillai, Salem, Tamilnadu - 637502.


PRINCIPAL
MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)

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Tech

All investigation have their limitation which are imposed by the limitation of the laboratory. Isolated laboratory investigations never confirm the final diagnosis of the disease. They only help in arriving at a diagnosis in conjunction with clinical presentation and other related investigation.



The Salem District Co-operative Milk Producers' Union Ltd.,

(Regd No. E2, 512)

Nathanur, Thuduvampatti P.O., Salem District, Tamil Nadu

Mobile No: 94421 04000, 94421 04001

Fax: 0427 2386871, Email: sdmu@rediffmail.com

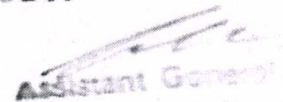
GST: 33AAAAAT3146P1ZA

Ref. No. 3719/Est/TC/2021

Date: 23.02.2021

CERTIFICATE

This is to certify that **J.THILAGAVATHI**, IInd year
M.Sc., Bio Technology student of Mahendra College of Arts &
Science, Namakkal District has undergone Inplant Training at
Salem Dairy from 05.02.2021 to 18.02.2021.


Assistant General Manager (P & L)
Training Centre,
Salem Dist. Co., op. Milk Producers
Union Ltd., Salem



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Kalippatti - 637 501, Namakkal (Dt), Tamil Nadu.

DEPARTMENT OF BIOTECHNOLOGY

List of students completed projects - 2020 - 2021

Programme : M.Sc. Biotechnology

| S.No | Reg.No | Name of the Candidate | Title of the Project |
|------|-----------|-----------------------|--|
| 1. | 19MBT1001 | KARTHIKEYAN. J | Synthesis of silver nanoparticles from the flower extract of <i>Lantana camara</i> and their antibacterial activity |
| 2. | 19MBT1002 | KARTHIKEYAN. R. | Biomimetic synthesis of bimetallic nanoparticles from Palmyra sprout and its antibacterial activity |
| 3. | 19MBT1003 | PARISAN K.P. | Biofilm production by vs3D strain and its characterization, dye adsorption efficiency |
| 4. | 19MBT1004 | RAJAKANNAN.S | Heavy Metal Analysis from Fish samples at Thimmalai Lake, Kallakurichi District |
| 5. | 19MBT1006 | SATHISH KUMAR G. | Isolation and screening of potential bio surfactant producing bacteria from used engine oil contaminated soil |
| 6. | 19MBT1005 | SOUNDARARAJAN S. | Antimicrobial activity of selected medicinal plant of <i>Senna italica</i> |
| 7. | 19MBT1007 | ABIRAMI T. | Photosynthesis of copper nanoparticles using magnifera indica flower extract as bioreductant and their broad-spectrum antibacterial activity |
| 8. | 19MBT1008 | ISWARYA S | Effect of citric acid and vermiwash on growth and metal accumulation of <i>Saccharum officinarum</i> cultivated in lead and nickel contaminated soil |
| 9. | 19MBT1009 | JOTHIGA.M | Isolation and identification of bacterial species in medicinal plants rhizosphere soil and its antibacterial activity |
| 10. | 19MBT1010 | KAVITHA P | Groundwater treatment using <i>Strychnos potatorum</i> seed powder as Biosorbent |
| 11. | 19MBT1011 | MADHU MITHA V | Calotropis Gigantean Assisted Green Synthesis Of Silver Nanoparticles And there Antibacterial Activity |
| 12. | 19MBT1012 | SHALINI V | Biomimetic synthesis of copper nanoparticles using <i>Canthiumcoromandelicum</i> leaf extract and its antibacterial and catalytic degradation of Janus green |
| 13. | 19MBT1013 | THILAGAVATHI J | Impact of earthworm on the bioremediation efficiency in the pesticides amended compost pin |


Head of the Department
HEAD OF THE DEPARTMENT

Department of Biotechnology,

Mahendra Arts & Science College (Autonomous),
Kalippatti (Po) - 637 501, Tiruchengode (Tk),


PRINCIPAL
MAHENDRA ARTS & SCIENCE COLLEGE
(Autonomous)
Kalippatti (PO) - 637 501, Namakkal (Dt)


Principal

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MAHENDRA ARTS & SCIENCE COLLEGE

Synthesis of sily

compounds from the flower extract of Lantana camara and their antibacterial activity

Thesis submitted in partial fulfillment of the requirements for
the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

J.Karthikeyan

Reg.No.:19MBT1001

Under the Guidance of

Dr. T. SelvamKumar, M.Sc., M.Phil., Ph.D.,

Associate Professor & Head,

Department of Biotechnology



BIOTECHNOLOGY & RESEARCH DEPARTMENT OF BIOTECHNOLOGY

(DST-FIST Sponsored)

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Regulated by Sections 2(f) & 12(B) of UGC Act 1956 | 90th All India NIRF Ranking 2020)

Kalippatti 637 501

June-2021

PRINCIPAL

MAHENDRA ARTS & SCIENCE COLLEGE

(Autonomous)

Kalippatti (PO) - 637 501, Namakkal (DT)

CERTIFICATE

This is to certify that the dissertation entitled "Synthesis of silver nanoparticles from the flower extract of Lantana camara and their antibacterial activity" submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts & Science College (Autonomous), Kalippatti** is a record of bonafide research work carried out by **J. Karthikeyan (Reg. No.: 19MBT1001)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

[Signature]
Signature of the Guide

Dr. T. Selvankumar
Dr. K. Selvam, M.Sc., M.Phil., Ph.D.,

HEAD OF THE DEPARTMENT

Assistant Professor,
Department of Biotechnology,
Mahendra Arts & Science College (Autonomous),
Kalippatti (Po) - 637 501, Tiruchengode (TK),
Namakkal (Dt), Tamil Nadu, India.

[Signature]
Head of the Department

Dr. T. Selvankumar, M.Sc., M.Phil., Ph.D.,
HEAD OF THE DEPARTMENT

Associate Professor & Head,
Department of Biotechnology,
Mahendra Arts & Science College (Autonomous),
Kalippatti (Po) - 637 501, Tiruchengode (TK),
Namakkal (Dt), Tamil Nadu, India (Autonomous)

Kalippatti.

Examiner 1

[Signature]

Examiner 2

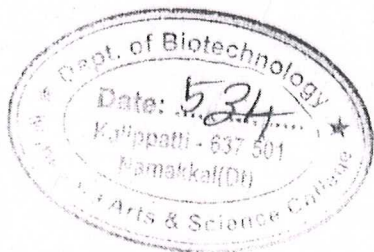
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**BIOMIMETIC SYNTHESIS OF BIMETALLIC NANOPARTICLES
FROM PALMYRA SPROUT AND ITS ANTIBACTERIAL ACTIVITY**

*Dissertation submitted
in partial fulfillment of the requirement for the award of the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

R.KARTHIKEYAN

Reg.No.: 19MBT1002

Under the Guidance of

Dr.C.SUDHAKAR

Assistant Professor



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CERTIFICATE

This is to certify that the dissertation entitled "**Biomimetic synthesis of bimetallic nanoparticles from Palmyra sprout and its antibacterial activity**" Submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts and Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **Karthikeyan.R (Reg.No.:19MBT.002)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

C. Arumugam

Signature of the Guide

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Head of the Department

HEAD OF THE DEPARTMENT

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Namakkal (Dt), Tamil Nadu, India.

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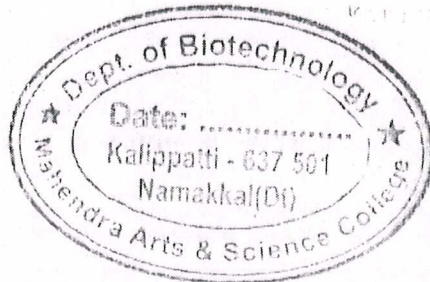
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C. Arumugam

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**Biofilm production by vs3D strain and its characterization, dye
adsorption efficiency**

Dissertation submitted

in partial fulfillment of the requirement for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

K.P.PARISAN

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Under the Guidance of

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Assistant Professor



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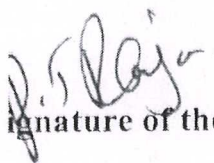
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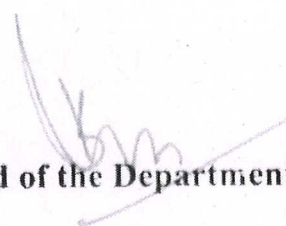
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This is to certify that the dissertation entitled "**Biofilm production by vs3D strain and its characterization, dye adsorption efficiency**" Submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in Biotechnology to the Mahendra Arts and Science College (Autonomous), Kalippatti is a record of bonafide research work carried out by **P.PARISAN (Reg.No.: 19MBT1003)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.


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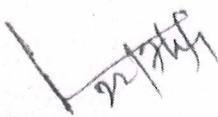
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HEAVY METAL ANALYSIS AND BIODIVERSITY OF THIMMALAI LAKE, KALLAKURICHI DISTRICT
Dissertation submitted in partial fulfillment of the requirement for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

S.RAJAKANNAN (Reg.No. 19MBT1004)

Under the Guidance of

Dr. N. Kannan, M.Sc., M.Phil., M.Phil., B.Ed., Ph.D., SET.

Assistant Professor



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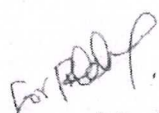
KALIPPATTI 637 501

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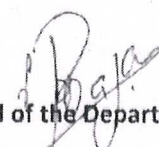

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This is to certify that the dissertation entitled "HEAVY METAL ANALYSIS AND BIODIVERSITY OF THIMMALAI LAKE, KALLAKURICHI DISTRICT" Submitted in partial fulfillment of the requirement for the award of the degree of Bachelor of Science in Biotechnology to the Mahendra Arts & Science College (Autonomous), Kalippatti is a record of bonafide research work carried out by S.RAJAKANNAN (Reg.No. 19MBT1004) under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.


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Head of the Department

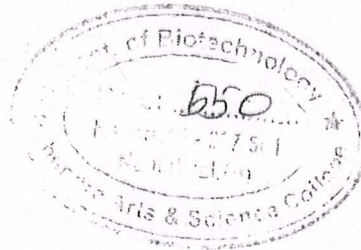
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Isolation and screening of potential biosurfactant-producing bacteria
from used engine oil-contaminated soil

*Dissertation submitted in partial fulfillment of the requirement for
the award of the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

G.Sathish kumar

Reg. No.:19MBT1005

Under the Guidance of

Dr. K. Selvam, M.Sc., M.Phil., Ph.D.,

Assistant Professor in Biotechnology



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Certificate

This is to certify that the dissertation entitled "**Isolation and screening of potential biosurfactant producing bacteria from used engine oil contaminated soil**" submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts & Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **G. Sathish Kumar (Reg. No.: 19MBT1005)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

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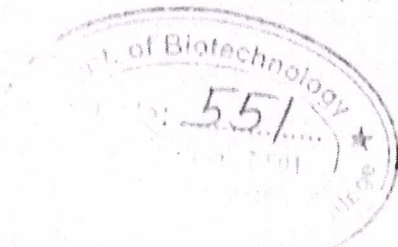
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**IN VITRO ANTIMICROBIAL ACTIVITY OF SELECTED
MEDICINAL PLANTS OF *SENNA ITALICA***

Dissertation submitted

in partial fulfillment of the requirement for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

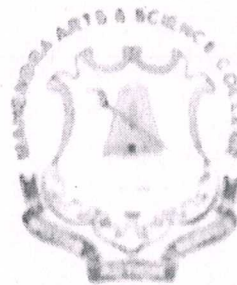
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Reg. No.: 19MBS1006

Under the Guidance of

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This is to certify that the dissertation entitled "**In vitro Antimicrobial Activity of Selected Medicinal Plants of *Senna italica***" Submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in Biotechnology to the Mahendra Arts and Science College (Autonomous), Kalippatti is a record of bonafide research work carried out by **S.Soundararajan (Reg.No.: 19MBT1006)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

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Dr.T.Selvankumar M.Sc., M.Phil., Ph.D.

Department of Biotechnology ,

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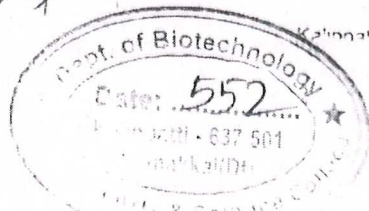
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**Phytosynthesis of copper nanoparticles from using *Mangifera indica*
flower extract as bioreductant and their broad spectrum
antibacterial activity**

*Dissertation submitted in partial fulfillment of the requirement for the award of
the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

T.ABIRAMI

REG.NO:19MBT1007

Under the Guidance of

DR.A.SENGOTTAIYAN.M.SC.,M.Phill.,Ph.D.,



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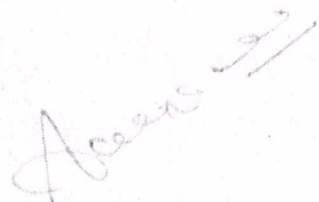

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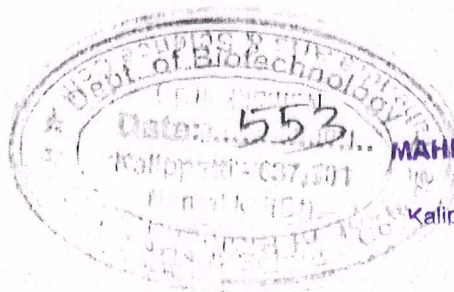
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**CITRIC ACID AND VERMIWASH ON GROWTH AND METAL
ACCUMULATION OF *SACCHARUM OFFICINARUM* CULTIVATED IN
LEAD AND NICKEL CONTAMINATED SOIL**

*Dissertation submitted in partial fulfillment of the requirement for
the award of the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

ISWARYA S

(Reg.No. 19MBT1008)

Under the Guidance of

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Assistant Professor



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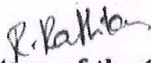
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This is to certify that the dissertation entitled “**citric acid and vermiwash on growth and metal accumulation of *Saccharum officinarum* cultivated in lead and nickel contaminated soil**” Submitted in partial fulfillment of the requirement for the award of the degree of Bachelor of Science in **Biotechnology** to the **Mahendra Arts & Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **ISWARYA S (Reg.No. 19MBT1008)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.


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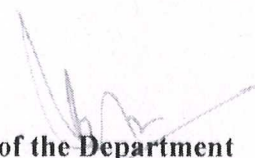
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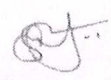
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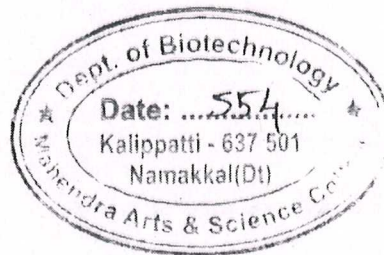
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Isolation and identification of bacterial species in medicinal plants rhizosphere soil and its antibacterial activity

*Dissertation submitted in partial fulfillment of the requirement
for the award of the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

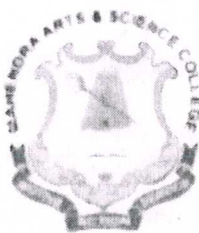
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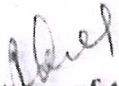
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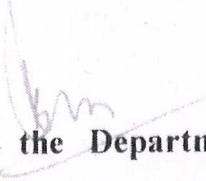
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This is to certify that the dissertation entitled "Isolation and identification of bacterial species in medicinal plants rhizosphere soil and its antibacterial activity" submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts & Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **M. JOTHIGA, Reg.No.:19MBT1009** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part of full in any scientific or popular journals or magazines.


Signature of the Guide

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Head of the Department

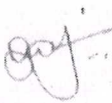
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Dr. T. Selvankumar, M.Sc., M.Phil., Ph.D.,
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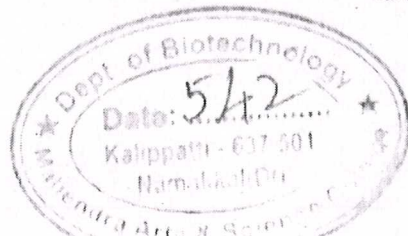
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**GROUNDWATER TREATMENT USING STRYCHNOS
POTATORUM SEED POWDER AS BIOSORBENT**

*Dissertation submitted in partial fulfillment of the requirement for
the award of the Degree of*

BACHELOR OF SCIENCE IN BIOTECHNOLOGY

Submitted by

Kavitha.P

Reg.No: 19MBT1010

Under the Guidance of

Mrs.P.Nirmala M.Sc., M.Phil.,

Assistant Professor



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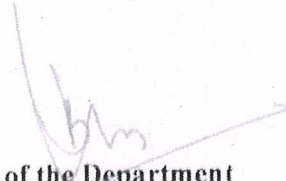
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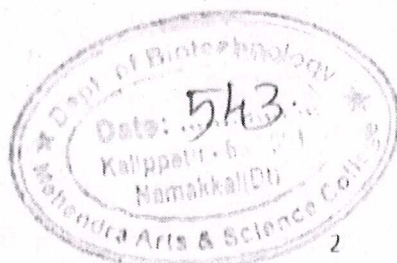
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**CALOTROPIS GIGANTEAN ASSISTED GREEN SYNTHESIS OF
SILVER NANOPARTICLES AND THERE ANTIBACTERIAL
ACTIVITY.(Font 14")**

*Dissertation submitted
in partial fulfillment of the requirement for the award of the Degree of*
MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

Madhumitha V

Reg.No.: 19MBT1011

Under the Guidance of

Dr. T. Selvankumar, M.sc., M.phil., Ph.D.

Associate Professor & Head in Biotechnology



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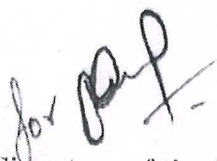

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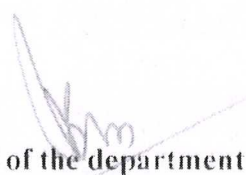
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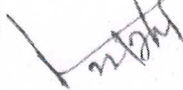
This is to certify that the dissertation entitled "**Calotropis Gigantea Assisted Green Synthesis Of Silver Nanoparticles And there Antibacterial Activity**" Submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts and Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **Madhumitha V (Reg.No.: 19MBT1011)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.



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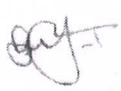
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Biomimetic synthesis of copper nanoparticles using *Canthium coromandelicum* leaf extract and its antibacterial and catalytic degradation of Janus green

Dissertation submitted in partial fulfillment of the requirement for the award of the Degree of

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

V. Shalini

Reg. No.:19MBT1012

Under the Guidance of

Dr. K. Selvam, M.Sc., M.Phil., Ph.D.,

Assistant Professor in Biotechnology



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This is to certify that the dissertation entitled "**Biomimetic synthesis of copper nanoparticles using *Canthium coromandelicum* leaf extract and its antibacterial and catalytic degradation of Janus green**" submitted in partial fulfillment of the requirement for the award of the degree of Master of Science in **Biotechnology** to the **Mahendra Arts & Science College (Autonomous)**, Kalippatti is a record of bonafide research work carried out by **V. Shalini (Reg. No.:19MBT10)** under my supervision and guidance and that no part of the dissertation has been submitted for the award of any degree, diploma, fellowship or other similar titles or prizes and that the work has not been published in part or full in any scientific or popular journals or magazines.

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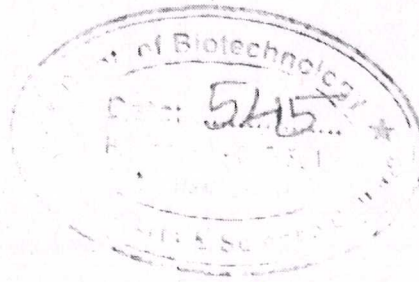
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IMPACT OF EARTHWORM ON THE BIOREMEDIATIONS EFFICIENCY
IN THE PESTICIDE AMENED COMPOST PIN

*Dissertation submitted in partial fulfillment of the requirement for
the award of the Degree of*

MASTER OF SCIENCE IN BIOTECHNOLOGY

Submitted by

THILAGAVATHI.J

Reg.No.:19MBT1013

Under the Guidance of

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R. Rathika
Signature of the Guide

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Head of the Department

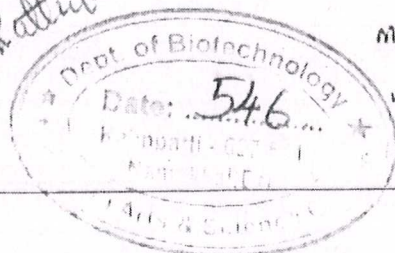
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Examiner 2

R. Rathika



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